Amendments to the Claims

Applicant presents a full set of claims.

1-43. (Canceled)

44. (New) A method of recruiting progenitor cells to a site in the body of a subject comprising:

introducing at the site in the body of the subject an implant that includes one or more factors selected from growth factors, angiogenic/vasculogenic factors and bone marrow recruiting factors,

allowing sufficient time for the progenitors cells to migrate to and enter the implant, and optionally,

removing the implant from the subject and isolating the progenitor cells.

45. (New) The method of claim 44, wherein the implant comprises an external porous housing having pores of a size sufficient to allow movement into the implant of the progenitor cells to be recruited and a drug delivery system contained within the housing.

46. (New) The method of claim 45, wherein the external porous housing is composed of a polymeric mesh and the drug delivery system comprises a plurality of microspheres, microparticles, nanospheres, macrospheres, nanoparticles, macroparticles, matrices, beads, films, rods, coatings or hydrogels.

47. (New) The method of claim 46, wherein the polymeric mesh is composed of one or more polymers selected from poly-L-lactide (PLA), PLGA, poly(fumaric acid:sebacic acid) co-polymer or polycaprolactone.

48. (New) The method of claim 44, wherein the angiogenic/vasculogenic factors are selected from VEGF-A, VEGF-B, VEGF-C, VEGF-D, VEGF-E, aFGF, bFGF, angiopoietin-1, antiopoietin -2, angiogenin, Del-1, follistatin, HGF/SF, leptin, midkine, PLGF, PD-ECGF, PDGF-BB, PTN, progranulin, proliferin, TGF-alpha, TGF-beta, TNF-alpha, IGF-1 and IGF-2, and the bone marrow recruiting factors are selected from GM-CSF, G-SCF, SDF-1α, SDF-1β, MCP-1, stem cell factor/kit ligand, M-CSF, IL-8, SF20 and HCC-1.

49. (New) The method of claim 44, wherein the one or more factors are GM-CSF and VEGF.

50. (New) The method of claim 44, wherein the progenitor cells are selected from endothelial progenitor cells, hematopoietic progenitor cells, hemangioblasts, neural progenitor cells, and epithelial progenitor cells.

51. (New) The method of claim 44, wherein the hematopoietic progenitor cells are CD133+ or CD34+ cells.

52. (New) A method of recruiting progenitor cells to a site in the body of a subject comprising:

introducing at the site in the body of the subject an implant comprising an external porous housing composed of a polymeric mesh and having pores of a size sufficient to allow movement into the implant of the progenitor cells to be recruited and a drug delivery system contained within the housing comprising a plurality of microspheres, microparticles, nanospheres, macrospheres, nanoparticles, macroparticles, matrices, beads, films, rods, coatings or hydrogels, the implant further including one or more factors selected from growth factors, angiogenic/vasculogenic factors and bone marrow recruiting factors,

allowing sufficient time for the progenitors cells to migrate to and enter the implant, and optionally,

removing the implant from the subject and isolating the progenitor cells.

53. (New) The method of claim 52, wherein the one or more factors are GM-CSF and VEGF.

54. (New) The method of claim 53, wherein the progenitor cells are CD133+ or CD34+ cells.

55. (New) An implant for recruiting progenitor cells to a site in the body of a subject comprising an external porous housing having pores of a size sufficient to allow movement into the implant of the progenitor cells to be recruited and a drug delivery system comprises a plurality of microspheres, microparticles, nanospheres, macrospheres, nanoparticles,

macroparticles, matrices, beads, films, rods, coatings or hydrogels and further including one or more factors selected from growth factors, angiogenic/vasculogenic factors and bone marrow recruiting factors.

56. (New) The implant of claim 55, wherein the external porous housing is composed of a polymeric mesh.

57. (New) The method of claim 56, wherein the polymeric mesh is composed of one or more polymers selected from poly-L-lactide (PLA), PLGA, poly(fumaric acid:sebacic acid) co-polymer or polycaprolactone.

58. (New) The method of claim 55, wherein the angiogenic/vasculogenic factors are selected from VEGF-A, VEGF-B, VEGF-C, VEGF-D, VEGF-E, aFGF, bFGF, angiopoietin-1, antiopoietin -2, angiogenin, Del-1, follistatin, HGF/SF, leptin, midkine, PLGF, PD-ECGF, PDGF-BB, PTN, progranulin, proliferin, TGF-alpha, TGF-beta, TNF-alpha, IGF-1 and IGF-2, and the bone marrow recruiting factors are selected from GM-CSF, G-SCF, SDF-1α, SDF-1β, MCP-1, stem cell factor/kit ligand, M-CSF, IL-8, SF20 and HCC-1.

59. (New) The method of claim 55, wherein the one or more factors are GM-CSF and VEGF.

60. (New) The method of claim 55, wherein the progenitor cells are selected from endothelial progenitor cells, hematopoietic progenitor cells, hemangioblasts, neural progenitor cells, and epithelial progenitor cells.

61. (New) The method of claim 60, wherein the hematopoietic progenitor cells are CD133+ or CD34+ cells.

62. (New) An implant for recruiting progenitor cells to a site in the body of a subject comprising an external porous housing composed of a polymeric mesh having pores of a size sufficient to allow movement into the implant of the progenitor cells to be recruited and a drug delivery system comprises a plurality of microspheres, microparticles, nanospheres, macrospheres, nanoparticles, macroparticles, matrices, beads, films, rods, coatings or

hydrogels, and further including one or more factors selected from growth factors, angiogenic/vasculogenic factors and bone marrow recruiting factors.

63. (New) The method of claim 62, wherein the one or more factors are GM-CSF and VEGF.

64. (New) The method of claim 63, wherein the progenitor cells are CD133+ or CD34+ cells.